

19/11/13

Reg.No. 

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**B.E / B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS, NOV / DEC 2013**

**GEOINFORMATICS**

Third Semester

**GI 8302 GEODETIC SURVEYING**

(Regulation 2012)

Time: 3 Hours

Answer ALL Questions

Max. Marks 100

**PART-A (10 x 2 = 20 Marks)**

1. List the different levelling staves available in the market and give details about the one used by you in the field.
2. What are the sources of errors in levelling?
3. Write about any one of the methods of interpolating contours with illustration.
4. Mention the salient details about the digital planimeter.
5. State the various methods of establishing vertical control. Which one will you prefer and why?
6. Draw the Gale's traverse table.
7. Draw and define the following: Equinoctial and Solstial colure.
8. Draw a neat sketch to show the zone time adopted by our country.
9. How will you correct the observed attitude of the sun?
10. What are the different possible observations that can be taken in Practical Astronomy?

**Part – B ( 5 x 16 = 80 marks)**

11. Discuss in details, about the different celestial co-ordinate systems used in Astronomical surveying.
  12. a) The following staff reading in m were obtained when running a line of levels between two bench marks A (RL = 100 m) and B (RL = 98 m).  
1.950 (A), 2.900, 3.100, 2.950 (change point), 1,500, 1.910, 3.250 (change point), 2,510, 3.150, 0.450 (change point), 1.350, 2.750 and 2.810 (B)  
Enter and reduce the levels in a page of level book.  
Determine the error in the reduced level of B.
- OR**
12. b) A new road across a filled - in valley has centre line pegs at 50m interval to indicate a rising slope of 1 in 100. The first and last stations with chainages of 0 and 500m are on bed rock. From the following data, determine the RL of the pegs and subsidence if any.

Instrument Station	Staff reading in m (chainages)
A	0.590 (at BM), 2.010(0), 1.515 (50m)
B	1.285 (50m), 0.780(100m), 0.310(150m)
C	2.005(150m), 1.575(200m), 1.005(250m)
D	2.610(250m), 2.195(300m), 1.585(350m)
E	2.855 (350m), 2.415(400m), 1.785(450m)
F	1.480(450m), 1.045(500m)